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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,999	01/11/2005	Taisei Matsumoto	TIP-04-1329	7280

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EXAMINER

BOYKIN, TERRESSA M

ART UNIT PAPER NUMBER

1711

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/517,999

Applicant(s)

MATSUMOTO ET AL.

Examiner

Terressa M. Boykin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11 and 13-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11-13-6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Priority

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1- 9,11,13-15, 16,17 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pub 2002/0198332 see pages 1-6.

With regard to applicants claims 1- 9,11,13-15, 16,17 note that the reference discloses a poly(lactic acid) polymer composition comprising a poly(lactic acid) polymer exhibiting crystallinity, and a plasticizer, in which the plasticizer has at least one poly(lactic acid) segment having a molecular weight of 1200 or more per molecule and comprises a polyether and/or polyester segment.

USPub 2002/0198332 disclosed a lactic acid-based resin composition comprising a mixture of (A) a mixture of (a1) polylactic acid and (a2) an aliphatic polyester, and (B) an aliphatic block co -polyester having a polylactic acid segment and

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an aliphatic polyester segment, wherein the aliphatic block co -polyester (B): (1) *contains a lactic acid component in an amount of from 20 to 80 wt % in terms of monomer, (2) has a weight average molecular weight of 1,000 or more and less than 60,000, and (3) has a weight average molecular weight of the polylactic acid segment of from 500 to 55,000 and a weight average molecular weight of the aliphatic polyester segment of from 500 to 55,000.* The lactic acid-based resin composition of the invention has transparency and flexibility because the respective compositional resins are effectively dispersed. The molded article formed there from is good in molding property, and in particular, a molded article thus stretched, oriented and crystallized, such as a film, a sheet, a filament and the like, has excellent mechanical property and heat resistance in addition to the foregoing properties.

The reference acknowledges that "in the lactic acid-based resin composition, various kinds of additives (a *plasticizer*, an antioxidant, an ultraviolet ray absorbent, a heat stabilizer, a flame-retardant, an internal releasing agent, an inorganic additive, an antistatic agent, a surface wet ability-improving agent, a combustion assistant, a pigment, a lubricant and a natural matter) and the like may be added corresponding to the objects (for example, improvement in moldability, secondary workability, degradability, tensile strength, heat resistance, storage stability, weather resistance and the like).

With regard to the molecular weights, note that molecular weight (for a polymer) defined by a number only is normally so meaningless as to be indefinite and thus should be defined by one of the standard types (Mw, Mn, etc); if molecular weight is

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narrowly critical (i.e., necessary to establish patentability) there must be sufficient data to back calculate the property from which the molecular weight was calculated. (In that instance it is generally preferable to define the claimed molecular weight by the property).

With regard to applicants claims 8 and 9, note that the reference discloses specific examples of the aliphatic dihydric alcohol that may be used in the aliphatic polyester in the reference, for example, ethylene glycol, diethylene glycol, triethylene glycol, *polyethylene glycol*, propylene glycol, dipropylene glycol, 1,3-butanediol, 1,4-butanediol, 3-methyl-1,5-pentanediol, 1,6-hexanediol, 1,9-nonanediol, neopentyl glycol, polytetramethylene glycol, 1,4-cyclohexanedimethanol and the like can be exemplified. These may be used solely or in combination of two or more of them.

With regard to claim 11 wherein the composition is being stretched 1.1 times or more in at least one axial direction, the reference discloses in claim 7 "a molded article described in item [6], which is stretched in at least *one direction* by from 1.1 to 15 times"

With regard to applicants claim 12, note claim 8 of the reference disclosed the formation of a film.

With regard to claim 13 in which the film has a tensile modulus of elasticity of 100 to 1500 MPa and a heat resistance of 120.degree. C. to 230.degree. C., note that the reference discloses that the composition may be made into a molded article that has excellent mechanical property and heat resistance in

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addition to the foregoing properties.

With regard to claim 14 in which the film has a film haze of 0.2 to 5 percent, note that the reference discloses procedures which produce products having a haze was 20%; a haze of 2.3%; a haze of 6.1% etc.

With regard to claim 16, in which the film is selected from a packaging wrap film, a stretch film, an agricultural film, a film for label, a film for tape, a film for protecting a base material and a film for bag, note that the reference discloses that the lactic acid-based resin composition has transparency and flexibility such that the molded article formed there from is good in molding property, and in particular, a molded article thus stretched, oriented and crystallized, such as a film, a sheet, a filament and the like, is a molded article that has excellent mechanical property and heat resistance in addition to the foregoing properties. Therefore, it can be preferably used as materials of wide ranges, such as *various kinds of packaging materials* for food, electronics, medical use, pharmaceuticals, cosmetics and the like, materials for agriculture, civil engineering and construction, and fishery, a compost material, and the like. When it is discarded after use, it is not accumulated as industrial waste and domestic waste.

The fact that the reference does not specifically state that no crystallinity exists may be interpreted as inherent since such characteristics of the reference, the process parameters and the use of the product appear to be the same. Any properties or characteristics inherent in the prior art, e.g. acid value, although unobserved, unmentioned or detected by the reference, would still anticipate the claimed invention. Note In re Swinehart, 169 USPQ 226. "It is elementary that the mere recitation of a

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newly discovered...property, inherently possessed by things in the prior art, does not cause claim drawn to those things ".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 15, 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPub 2002/0198332 see abstract, cols. 1-8 and claims.

Thus, the **USPub 2002/0198332** discloses a stretched film polylactic acid polymer as claimed by applicants except for specifically stating that the film may be used for packaging wrap. However, the characteristics disclosed, i.e. stretching, strength etc. would be advantageous for the use for wrapping an object. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the film as a packaging wrap since a film "inherently" covers an object and the films characteristics would advantageously lend itself as a wrap. Further the reference acknowledges that when "polylactic acid has high rigidity and thus cannot be said that it is a resin suitable for such purposes that require flexibility, such as a film, *a packaging material* and the like" and thus seeks to produce a product to overcome the obstacle, i.e. by forming a molded article formed there from is good in molding property, and in

particular, a molded article thus stretched, oriented and crystallized, such as a film, a sheet, a filament and the like, has excellent mechanical property and heat resistance in addition to the foregoing properties. The reference also specifically states that "[it] can be preferably used as materials of wide ranges, such as various kinds of *packaging materials* for food, electronics, medical use, pharmaceuticals, cosmetics and the like, materials for agriculture, civil engineering and construction, and fishery, a compost material, and the like. When it is discarded after use, it is not accumulated as industrial waste and domestic waste.

With regard to claim 15 in which the film has an adhesion of 5 to 30 N/cm.² although the reference does not specifically disclose an adhesion parameter, the reference does disclose that the product may be used as adhesion tape, thus inherently having adhesion properties. Any properties or characteristics inherent in the prior art, e.g. acid value, although unobserved, unmentioned or detected by the reference, would still anticipate the claimed invention. Note In re Swinehart, 169 USPQ 226. "It is elementary that the mere recitation of a newly discovered...property, inherently possessed by things in the prior art, does not cause claim drawn to those things".

Consequently, the claimed invention cannot be deemed as unobvious and accordingly is unpatentable.

35 USC 112, Second Paragraph

Claims 1-9,11,13-15, 16,17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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With regard to the recited "molecular weight", note that molecular weight (for a polymer) defined by a number only is normally so meaningless as to be indefinite and thus should be defined by one of the standard types (Mw, Mn, etc); if molecular weight is narrowly critical i.e.. necessary to establish patentability) there must be sufficient data to back calculate the property from which the molecular weight was calculated. (In that instance it is generally preferable to define the claimed molecular weight by the property).

Correspondence

Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov <<http://www.uspto.gov>>), from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center (EBC) at <<http://www.uspto.gov/ebc/index.html>> or 1-866-217-9197.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is (571-272-1700).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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tmb


Examiner Terressa Boykin
Primary Examiner
Art Unit 1711